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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,174	12/28/2001	Maurizio Boiocchi	07040.0115	4632
7590 10/15/2003 Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 1300 I Street, N.W. Washington, DC 20005-3315			EXAMINER MAKI, STEVEN D	
			ART UNIT 1733	PAPER NUMBER

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/029,174

Applicant(s)

BOIOCCHI ET AL.

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 16-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 16-23 and 25 is/are rejected.
- 7) ☒ Claim(s) 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1) The disclosure is objected to because of the following informalities: In the preliminary amendment filed 12-28-01, the insertion at page 1 line 24 refers to claim 1.

Appropriate correction is required.

2) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4) **Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Japan '606 (JP 63-61606).**

Japan '606 discloses a pneumatic radial tire comprising a tread including a central area (central region) having width TWC and side areas (shoulder regions) each having a width TWS. The central region comprises blocks 40. Each shoulder region comprises blocks 40. The blocks 40 in the shoulder region are joined to each other by joined parts 50. As can be seen from figure 1, the joined parts 50 define a "continuous track" having a continuous lateral wall. During a partial oral translation of Japan '606 by a PTO translator, the following information was obtained: At page 4 upper left, Japan '606 discloses that this center region Tc should be predetermined within 30-50% of tread width. Hence, the central region has a width of 30-50% of the tread width TW.

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The sum of the shoulder regions therefore is 50-70% of the tread width (overlapping the claimed range of less than or equal to 60% of overall width). Since Japan '606 shows the shoulder regions as having the same width, the width of each shoulder region is 25-35% of tread width (overlapping the claimed range of not less than 20% of overall width). The tire has a size of 225/50R16 (low aspect ratio of 50%) and is therefore a high performance tire as claimed. See tire size at lower left of page 4.

As to claim 1, the claimed tire is anticipated by Japan '606's tire.

5) Claims 1, 16-18, 20-21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '606 (JP 63-61606) in view of Yamaoka et al (US 4773459) and either Japan '704 (JP 60-193704) or Croyle et al (US 5529101).

Japan '606, which is described above, is considered to anticipate claim 1. In any event: As to claims 1, 16 and 25, it would have been obvious to one of ordinary skill in the art to provide the transverse grooves of Japan '606's high performance tire with varying depth in the central region as claimed since Yamaoka et al suggests raising the bottoms of the transverse grooves of a high performance tire (a low aspect ratio pneumatic radial tire) to improve drainage and prevent skid base from being reduce excessively. Furthermore, it would have been obvious to one of ordinary skill in the art to provide the circumferential grooves of Japan '606's pneumatic radial tire such that the outer wall is inclined more than the inner wall in view of (a) Japan '704's suggestion to incline the outer wall of a circumferential groove of a pneumatic radial tire at an angle β greater than the angle α of the inner wall to improve drainage or (b) Croyle et al's suggestion to incline the outer wall of a circumferential groove of a high performance

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tire more than the inner wall to achieve an increase in lateral stiffness without reducing circumferential groove area.

As to the dependent claims: As to claims 17 and 18, the claimed angles and claimed radii for the circumferential groove would have been obvious and could have been determined without undue experimentation in view of (a) Japan '704's suggestion to incline one wall at an angle β of 10-30 degrees and to incline the other wall at an angle α of 0-5 degrees such that the resulting *asymmetrical* circumferential groove, which has rounded bottom edges, improves drainage or (b) Croyle et al's suggestion to incline the walls such that an angular variation of 6-20 degrees is defined so that the resulting *asymmetrical* circumferential groove which has round bottom edges, achieves an increase in lateral stiffness without reducing circumferential groove area. As to claim 20, Japan '606 discloses rows of central blocks. As to claim 21, Japan '606 suggests approximately rhomboid shaped blocks.

6) Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '606 (JP 63-61606) in view of Yamaoka et al (US 4773459) and either Japan '704 (JP 60-193704) or Croyle et al (US 5529101) as applied above and further in view of Great Britain '795 (GB 1212795).

As to claim 19, it would have been obvious to add the claimed sipe(s) to the connected "shoulder blocks" of Japan '606 since Great Britain '795 suggests adding transverse sipes 36 to connected shoulder blocks for enhancing grip of the tire.

7) Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '606 (JP 63-61606) in view of Yamaoka et al (US 4773459) and either Japan

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'704 (JP 60-193704) or Croyle et al (US 5529101) as applied above and further in view of Japan '314 (JP 11-91314).

As to claim 22, it would have been obvious to provide the central blocks of Japan '606 so that the central blocks are approximately cusp shaped since Japan '314, which like Japan '606 discloses a non-directional tread pattern, suggests using center blocks separated by curved transverse grooves in order to improve drainage.

8) Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '606 (JP 63-61606) in view of Yamaoka et al (US 4773459) and either Japan '704 (JP 60-193704) or Croyle et al (US 5529101) as applied above and further in view of Pirelli (Tire Review advertisement) or Kuze et al (US 5016695).

As to claim 23, it would have been obvious to provide the central area of Japan '606's tread with the claimed three block rows and the claimed annular projection (rib) in view of Pirelli's suggestion to use a illustrated tread pattern, which has a central area including three block rows and a rib, to ensure high resistance to aquaplaning while delivering superior handling in all weather conditions or Kuze et al's suggestion to use a tread pattern as shown in figure 1, which has a central area including three block rows and a rib, to improve driving stability.

Allowable Subject Matter

9) Claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Although an asymmetric tread pattern including central blocks which are approximately semiparabolic shaped is known per se as shown by Schomburg (US 6478062), there is no motivation to further modify Japan '606 such that the central blocks are approximately semiparabolic while continuing to include the remaining limitations of claims 16 and 23 are required by the dependency of claim 24.

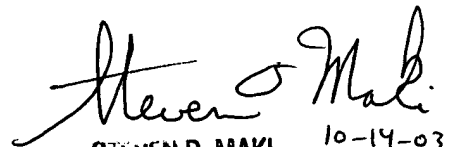
Remarks

- 10) The remaining references are cited of interest.
- 11) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
October 14, 2003


STEVEN D. MAKI
PRIMARY EXAMINER
GROUP 1300
Av 1733
10-14-03